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ABSTRACT

A study was made of nine covariates as to their discriminating power between preschoolers who watch Sesame Street regularly and preschoolers who do not watch Sesame Street, Surveyed were 372 3-4 year old children on 9 variables. The nine variables were: race, socioeconomic status, number of siblings, child's birth order, maternal age, maternal anxiety, maternal intelligence, maternal education level, and maternal authoritarianism. Regression analysis indicated that maternal education level was the only significant ($p<.05$) discriminator. However, examination of the intercorrleations revealed a picture of affluence related to Sesame Street viewing. Advanced maternal education was strongly associated ($r>.50$) with high socioeconomic status, high maternal intelligence, and low maternal authoritarianism. The implication of these findings for future educational research and program planning is discussed. (Author/SB)

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Covariates of Sesame Street Viewing by Preschoolers *

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Abstract

A study was made of nine covariates as to their discriminating power between preschoolers who watch Sesame Street regularly and preschoolers who do not watch Sesame Street. The nine variables were: race, socio-economic status, number of siblings, child's birth order, maternal age, maternal anxiety, maternal intelligence, maternal education level, and maternal authoritarianism. Regression analysis indicated that maternal education level was the only significant ($p \leq .05$) discriminator. However, examination of the intercorrelations revealed a picture of affluence related to Sesame Street viewing. The implication of these findings for future educational research and program planning are discussed.

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Covariates of Sesame Street Viewing by Preschoolers

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Problem The accepted premise now existing is that preschool intervention is the cure for the disadvantaged child. The almost universal access to a television set in the U. S. home plus the fact that preschoolers are the highest children's consumer group of television indicate that the televised medium is a "natural" as an intervention method. This is the conclusion reached by the Children's Television Workshop (CTW) in the late 1960's. The CTW Sesame Street program was the first large scale effort developed to the end of remediation for the television medium And, while evaluations of the effectiveness of Sesame Street have been and are being produced, the factors which relate to the atmosphere around the typical Sesame Street viewer are being ignored. This study is an investigation of some of these factors.

Procedure The children (n=372) for this study were three to four years old at the time data was collected. Sesame Street was in its first and second years of broadcasting. The children and their families constitute a broad spectrum of voluntary participants in a longitudinal child development program, popularly known as the St. Louis Baby Study. From the original birth cohort of 1008 babies, nine pieces of data relevant to the child's home environment were selected as predictors of a dichotomous criterion of "viewed Sesame Street regularly" or " did not view Sesame Street at all". The nine predictors were: race, socioeconomic status, number of siblings, child's birth order, maternal age, maternal anxiety, maternal intelligence, maternal education level, and maternal authoritarianism as it relates to child rearing (see Figure 1 and Table 1). The discriminating power of each predictor was examined using multiple linear regression analysis. A series of models were constructed to evaluate the independent contribution of each predictor to the dichotomous criterion of viewing behavior.

Results The regression analyses (Table 3) yielded only one significant ($p \leq .05$) discriminator: maternal education level. The respective F-tests of model R^2 differences were: year one -- $F(1,362) = 9.43$, year two -- $F(1,354) = 4.43$, both years -- $F(1,215) = 8.94$ All Full Models (ie., models containing all nine predictors) were also found to be significantly ($p \leq .001$) different from the null model. Table 2 indicates that the maternal education variable was also the highest bivariate correlation ($r = .31$, $r = .24$, $r = .43$ for respective samples) with the criterion. These results indicate that children who view Sesame Street regularly are reared in more highly educated homes than nonviewing children. Addition-

ally (Table 2), a general picture of affluence for Sesame Street viewers is revealed in the strong ($r > .50$) associations of advanced maternal education with high socioeconomic status, high maternal intelligence, and low maternal authoritarianism.

Conclusions and Implications The evaluations of the effectiveness of Sesame Street as an intervention method must proceed. However, the results of this investigation raise a very pertinant question; namely, are the disadvantaged children watching. As the chice goes, "you can lead a horse to water, but...". There is some doubt that the disadvantaged are even being lead to the water. The other implication from these results is also covered in a chiche: "the rich get richer and the poor get poorer." It appears that the "haves" still have and the "have nots" still have not. Or, at the very least, remediation is taking place across the board. In future Sesame Street evaluations it seems obvious that to test "true" effects, evaluation designs will have to build-in controls for, at least, maternal education, if not the entire cognitive-affective environment of the child.

Figure 1

Criterion and predictor variables used in the study of preschoolers viewing of Sesame Street

Criterion

1. Viewer-nonviewer: a dichotomous variable in which preschool children who reported (with parental confirmation) watching Sesame Street three times or more each week were coded as a "1" and nonviewers were coded as a "0".

Predictors

2. Race: a dichotomous variable indicating ethnic group in the St. Louis metropolitan area. Blacks were coded with a "1" and Whites with a "0".

3. Socioeconomic rating: an index of socioeconomic status developed by McGuire and White (1955). The index is a reverse order scale with high social class standing indicated by a low index number. Paternal education level, occupation category, and income type are the three weighted factors which generate this index.

4. Number of siblings: number of brothers and/or sisters of the study child living in the home.

5. Birth order: birth order position not including miscarriages.

6. Maternal age: mother's age at the time of the study child's delivery(1966-7).

7. Maternal anxiety (TMAS): the mother's score on the 18 item Bendig (1956) version of the Taylor Manifest Anxiety Scale; measured 6 mo. post-partum.

8. Maternal intelligence (QT): the raw score from plate 3 of the Quick Test by Ammons & Ammons (1962); measured 30 mo. post-partum.

9. Maternal education level: a five category variable ranking attained education as: 1 = completed 8th grade, 2 = attended high school but did not earn a diploma, 3 = received a high school diploma, 4 = attended college but did not earn a college degree, and 5 = received a college degree.

10. Maternal authoritarianism (AFI): the mother's score from the 1968 version of the Authoritarian Family Ideology (AFI) scale (Ernhart & Loevinger, 1969); measured during the mother's parturient confinement.

Table 1

Descriptive data on preschool viewers (V) and nonviewers (NV) of Sesame Street during the first two years of broadcasting in St. Louis, Missouri

Variable		Year One		Year Two		Both Years		Birth Cohort
		V	NV	V	NV	V	NV	
Sample size		184	188	213	151	130	95	1008
Race(% Black)		17.39	40.43	24.88	31.79	19.23	43.16	47.00
Socioeconomic Rating	M	47.39	56.02	48.79	55.32	47.02	59.61	56.22
	SD	14.84	15.45	15.02	15.95	14.67	14.54	15.58
No. of Siblings	M	2.18	2.32	2.10	2.42	2.02	2.35	2.42
	SD	1.89	2.09	1.80	2.14	1.75	2.15	2.17
Birth Order	M	2.72	2.87	2.66	2.97	2.55	2.89	2.86
	SD	1.95	2.11	1.85	2.14	1.81	2.11	2.15
Maternal Age	M	26.83	25.05	26.06	25.92	26.28	24.78	25.01
	SD	5.64	7.10	6.10	6.76	5.38	6.95	6.75
Maternal TMAS (anxiety)	M	4.61	6.27	4.83	6.24	4.23	6.67	5.81
	SD	3.83	4.43	3.99	4.41	3.55	4.31	4.42
Maternal QT (intelligence)	M	40.24	37.82	39.52	38.36	40.25	37.24	37.82
	SD	4.59	5.77	5.00	5.80	4.65	6.22	5.86
Maternal Education	M	3.39	2.72	3.29	2.76	3.49	2.52	2.88
	SD	1.02	1.01	0.96	1.12	0.94	1.05	1.04
Maternal AFI (authoritarian)	M	23.45	27.09	23.92	26.72	23.05	28.24	27.49
	SD	7.74	8.27	8.27	7.57	8.16	7.86	7.85

Table 2

Intercorrelations of nine home and maternal variables and the dichotomous criterion variable of viewer-nonviewer of Sesame Street *

Variable		1	2	3	4	5	6	7	8	9	10	
1. Viewer-nonviewer			-25	-27	-03	-03	13	-19	22	31	-22	
2. Race(White/Black)		-07		59	11	08	-26	28	-45	-41	58	
3. Socioecon. Rating		-20	58		08	06	-27	31	-48	-68	60	
4. No. of Siblings	YEAR	-08	11	08		95	57	11	-07	-17	-05	YEAR
5. Birth Order		-07	08	07	95		61	12	-05	-16	-06	
6. Maternal Age	TWO	01	-26	-26	56	60		-03	19	14	-39	ONE
7. Maternal TMAS		-16	27	31	12	14	-02		-23	-31	26	
8. Maternal QT		10	-46	-48	-09	-06	19	-24		51	-51	
9. Maternal Ed.		24	-42	-68	-16	-16	14	-31	52		-57	
10. Maternal AFI		-17	58	58	-05	-06	-39	25	-51	-57		

1. Viewer-nonviewer		-25	-39	-08	-08	12	-29	26	43	-30		
2. Race(White/Black)			61	13	11	-27	35	-50	-48	59		
3. Socioecon. Rating				13	14	-21	39	-52	-72	64	BOTH	
4. No. of Siblings					94	48	15	-12	-18	-06		
5. Birth Order						53	17	-10	-19	-06	YEARS	
6. Maternal Age							-06	18	15	-40		
7. Materna TMAS								-28	-42	33		
8. Maternal QT									56	-56		
9. Maternal Ed.										-61		

*Intercorrelation values rounded off to two decimal places and decimal points omitted.

Table 3

Comparison of discrimnant model R-squares for preschool viewers of Sesame Street during year one, year two, and both years

Models [@]	Year One R^2	Year Two R^2	Both Years R^2
Full-interaction	.224	.180	.385
Full	.132**	.081**	.217**
Race test	.125	.075	.217
Soc-eco. test	.132	.077	.211
No. Siblings test	.132	.080	.217
Birth Order test	.131	.081	.217
Maternal Age test	.127	.081	.215
Maternal TMAS test	.126	.073	.205
Maternal QT test	.131	.080	.217
Maternal Ed. test	.110*	.070*	.184*
Maternal AFI test	.130	.078	.217

[@]Significance of Full-interaction Model R^2 tested against Full Model R^2.
Significance of Full Model R^2 teated against a null model with R^2 = 0.0.
Significance of variable test Models tested against the Full Model R^2.

*F-ratio test of R^2 differences is significant at p = .05.

**F-ratio test of R^2 differences is significant at p = .001.